

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application Serial No: 10/610,337 Confirmation No. Unknown
Date Filed: June 30, 2003
Application Title: Methods For The Determination Of PCR Amplified Nucleic
Acids Using Linear Beacons
Applicants: Gildea et al.
Group Art Unit: Not Assigned
Examiner: Not Assigned
Certified Mail No.: 7099 3400 0007 5728 4548

Certificate of Mailing Pursuant to:
37 C.F.R. § 1.8

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail and addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 30th day of September, 2003.

Brian D. Gildea
Reg. No. 39,995

Information Disclosure Statement

Commissioner For Patents
Dear Sir or Madam:

In accordance with 37 C.F.R. § 1.97, Applicant(s) hereby make of record the following information and publications. Copies of PTO Form 1449 and each publication listed thereon [INCLUDE REFERENCE CODE, E.G., (U.S. PATENTS: AA through AZ); (BA - BZ FOREIGN PATENTS) &/OR (CA - CZ JOURNAL ARTICLES ETC.)] accompany this statement, either in the entirety or in the relevant parts.

Fee

Since the first Office Action on the merits has not been issued by The Office and this document is being mailed within 3 months of the filing date, it is believed that no fee is due for consideration of the documents contained herein. If however The Office determines that a fee is due for consideration of this Information Disclosure Statement, The Office is hereby authorized to deduct any other fee due for the entry of this paper into the file from Deposit Account 02-3240.

Respectfully submitted,

Date: Sept 30, 2003

Brian D. Gildea
Brian D. Gildea
Reg. No. 39,995

Applied Biosystems
15 DeAngelo Drive
Bedford, MA 01730
phone 781-280-2824
fax 781-280-2940

Customer Number 023544

023544
[Insert Bar Code Here]

FORM PTO-1449

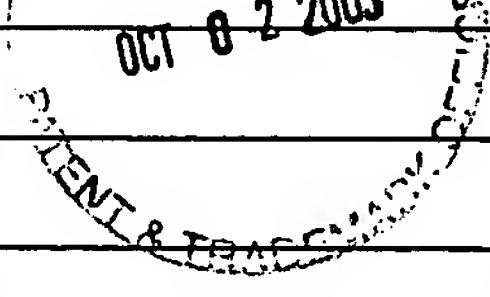


INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.: BP9703US-DV2
 APPLICANT: Brian D. Gildea, et al
 SERIAL NO.: 10/610,337
 FILING DATE: June 30, 2003
 GROUP:

| US PATENT DOCUMENTS | | | | | | | |
|---------------------|-----|--------------------|---------------|-----------------|-------|--------------|-------------------------------|
| EXAM INIT. | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB CLASS | FILING DATE IF APPROPRIATE |
| | AA | 4,174,384 | Nov. 13, 1979 | Ullman | 424 | | Oct. 12, 1976 |
| | AB | 4,261,968 | Apr. 14, 1981 | Ullman | 424 | | May 10, 1979 |
| | AC | 4,542,104 | Sep. 17, 1985 | Stryer | 436 | | Apr. 6, 1983 |
| | AD | 4,666,862 | May 19, 1987 | Chan | 436 | | Aug. 14, 1984 |
| | AE | 4,725,536 | Feb. 16, 1988 | Fritsch | 435 | | Sep. 19, 1985 |
| | AF | 4,725,537 | Feb. 16, 1988 | Fritsch | 435 | | Sep. 19, 1985 |
| | AG | 4,766,062 | Aug. 23, 1988 | Diamond | 435 | | May 7, 1984 |
| | AH | 4,822,733 | Apr. 18, 1989 | Morrison | 435 | | May 28, 1985 |
| | AI | 4,868,103 | Sep. 19, 1989 | Stavrianopoulos | 435 | | Feb. 19, 1986 |
| | AJ | 4,996,143 | Feb. 26, 1991 | Heller | 435 | | Apr. 13, 1990 |
| | AK | 5,118,801 | Jun. 2, 1992 | Lizardi | 536 | | Sep. 30, 1988 |
| | AL | 5,210,015 | May 11, 1993 | Gelfand | 435 | | Aug. 6, 1990 |
| | AM | 5,237,515 | Aug. 17, 1993 | Herron | 364 | | Apr. 10, 1991 |
| | AN | 5,288,611 | Feb. 22, 1994 | Kohne | 435 | | Mar. 19, 1992 |
| | AO | 5,312,728 | May 17, 1994 | Lizardi | 435 | | May 4, 1992 |
| | AP | 5,439,793 | Aug. 8, 1995 | Rose | 435 | | Jul. 19, 1990 |
| | AQ | 5,439,797 | Aug. 8, 1995 | Tsien | 435 | | Aug. 30, 1993 |
| | AR | 5,491,063 | Feb. 13, 1996 | Fisher | 435 | | Sep. 1, 1994 |
| | AS | 5,514,546 | May 7, 1996 | Kool | 435 | | Sep. 1, 1993 |
| | AT | 5,527,675 | Jun. 18, 1996 | Coull | 435 | | Aug. 20, 1993 |
| | AU | 5,538,848 | Jul. 23, 1996 | Livak | 435 | | Nov. 16, 1994 |
| | AV | 5,539,082 | Jul. 23, 1996 | Nielsen | 530 | | Apr. 26, 1993 |
| | AW | 5,573,906 | Nov. 12, 1996 | Bannwarth | 435 | | Mar. 22, 1993 |
| | AX | 5,601,984 | Feb. 11, 1997 | Kohne | 435 | | Jun. 2, 1995 |
| | AY | 5,607,834 | Mar. 4, 1997 | Bagwell | 435 | | Apr. 10, 1995 |
| | AZ | 5,612,183 | Mar. 18, 1997 | Kohne | 435 | | Jun. 2, 1995 |
| | AAA | 5,623,049 | Apr. 22, 1997 | Lobberding | 530 | | Sep. 6, 1994 |
| | AAB | 5,631,169 | May 20, 1997 | Lakowicz | 436 | | Jan. 19, 1994 |
| | AAC | 5,641,631 | Jun. 24, 1997 | Kohne | 435 | | Jun. 2, 1995 |
| | AAD | 5,643,762 | Jul. 1, 1997 | Ohshima | 435 | | Aug. 2, 1994 |
| | AAE | 5,675,517 | Oct. 7, 1997 | Stokdijk | 364 | | Apr. 25, 1995 |
| | AAF | 5,691,145 | Nov. 25, 1997 | Pitner | 435 | | Aug. 27, 1996 |
| | AAG | 5,691,146 | Nov. 25, 1997 | Mayrand | 435 | | Sep. 11, 1996 |
| | AAH | 5,705,346 | Jan. 6, 1998 | Okamoto | 435 | | Jun. 25, 1996 |
| | AAI | 5,707,804 | Jan. 13, 1998 | Mathies | 435 | | Mar. 27, 1995 |
| | AAJ | 5,714,331 | Feb. 3, 1998 | Buchardt | 435 | | Jul. 24, 1996 |
| | AAK | 5,723,294 | Mar. 3, 1998 | Glass | 435 | | Mar. 5, 1996 |
| | AAL | 5,736,336 | Apr. 7, 1998 | Buchardt | 435 | | May 1, 1997 |
| | AAM | 5,763,167 | Jun. 9, 1998 | Conrad | 435 | | Mar. 21, 1994 |
| | AAN | 5,770,365 | Jun. 23, 1998 | Lane | 435 | | Aug. 25, 1995 |
| | AAO | 5,773,571 | Jun. 30, 1998 | Nielsen | 530 | | Feb. 1, 1996 |
| | AAP | 5,780,233 | Jul. 14, 1998 | Guo | 435 | | Jun. 6, 1996 |

EXAMINER: _____ DATE CONSIDERED: _____

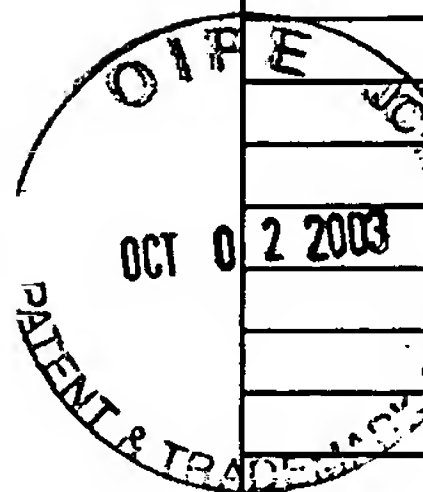


| | | | | | | | |
|--|----|--------------|---------------|-------------------------------|--|--|--|
| | BK | WO98/24933 ✓ | June 11, 1998 | WIPO | | | |
| | BL | WO98/26093 ✓ | June 18, 1998 | WIPO | | | |
| | BM | WO98/29568 ✓ | July 9, 1998 | WIPO | | | |
| | BN | WO98/30883 ✓ | July 16, 1998 | WIPO | | | |
| | BO | WO98/37232 ✓ | Aug. 27, 1998 | WIPO | | | |
| | BP | WO97/45539 ✓ | Dec. 4, 1997 | WIPO | | | |
| | BQ | WO98/10096 ✓ | Mar. 12, 1998 | WIPO | | | |
| | BR | WO93/10267 ✓ | May 27, 1993 | EUROPEAN PATENT SPECIFICATION | | | |
| | BS | WO93/25706 ✓ | Dec 23, 1993 | EUROPEAN PATENT SPECIFICATION | | | |
| | BT | WO94/02634 ✓ | Feb 3, 1994 | EUROPEAN PATENT SPECIFICATION | | | |
| | BU | WO94/28171 ✓ | Dec 8, 1994 | EUROPEAN PATENT SPECIFICATION | | | |
| | BV | WO97/07235 ✓ | Feb 27, 1997 | EUROPEAN PATENT SPECIFICATION | | | |
| | | | | | | | |

OTHER PUBLICATIONS

| | | | | | | | |
|---|----|---|--|--|--|--|--|
| | CA | Armitage, B. et al, Hairpin-forming peptide nucleic acid oligomers. Biochem. 37, 9417-9425 (1998) | | | | | |
| | CB | Bagwell, C.B. et al, A new homogeneous assay system for specific nucleic acid sequences: poly-dA and poly-A detection. Nucleic Acids Res. 22, 2424-2425 (1994) | | | | | |
| | CC | Blok, H.J. et al, Amplifiable hybridization probes containing a molecular switch. Molecular and Cellular Probes 11, 187-194 (1997) | | | | | |
| | CD | Cardullo, R.A. et al, Detection of nucleic acid hybridization by nonradiative fluorescence resonance energy transfer. Proc. Natl. Acad. Sci. USA 85, 8790-8794 (1988) | | | | | |
| | CE | Carmel, A. et al, Intramolecularly-quenched fluorescent peptides as fluorogenic substrates of leucine aminopeptidase and inhibitors of clostridial aminopeptidase. Eur. J. Biochem. 73, 617-625 (1977) | | | | | |
| | CF | Chen, X. et al, A homogeneous, ligase-mediated DNA diagnostic test. Genome Res. 8, 549-556 (1998) | | | | | |
| | CG | Clegg, R.M., Fluorescence Resonance Energy Transfer and Nucleic Acids. Methods in Enzymology 211, 353-388 (1992) | | | | | |
| | CH | Corey, D.R. 48000-fold Acceleration of Hybridization by Chemically Modified Oligonucleotides. J. Am. Chem. Soc. 117, 9373-9374 (1995) | | | | | |
| | CI | Diederichsen, U. et al, Self-Pairing PNA with alternating alanyl/homoalanyl backbone. Tett. Lett. 37, 475-478 (1996) | | | | | |
| | CJ | Dueholm, K.L. et al, Chemistry, properties and applications of PNA (Peptide Nucleic Acid). New J. Chem. 21, 19-31 (1977) | | | | | |
| | CK | Egholm, M. et al, PNA hybridizes to complementary oligonucleotides obeying the Watson-Crick hydrogen-bonding rules. Nature 365, 566-568 (1993) | | | | | |
| | CL | Ferguson, J.A. et al, A fiber-optic DNA biosensor microarray for the analysis of gene expression. Nature Biotech. 14, 1681-1684 (1996) | | | | | |
| o | CM | Fujii, M. et al, Nucleic acid analog peptide (NAAP)2, syntheses and properties of novel DNA analog peptides containing nucleobase linked β -aminoalanine. Bioorg. & Med. Chem. Lett. 7, 637-640 (March 1997) | | | | | |
| | CN | Guo, Z. et al, Direct fluorescence analysis of genetic polymorphisms by hybridization with oligonucleotide arrays on glass supports. Nucleic Acids Res. 22, 5456-5465 (1994) | | | | | |
| | CO | Guo, Z. et al, Enhanced discrimination of single nucleotide polymorphisms by artificial mismatch hybridization. Nature Biotech. 15, 331-335 (1997) | | | | | |
| | CP | Haasnoot, C.A.G. et al, Structure, kinetics and thermodynamics of DNA hairpin fragments in solution. J. Biomolecular Structure and Dynamics 1, 115-129 (1983) | | | | | |

EXAMINER: _____ DATE CONSIDERED: _____



| | | | | | | | |
|--|-----|-----------|----------------|-----------------------|-----|------|---------------|
| | AAQ | 5,786,461 | Jul. 28, 1998 | Buchardt | 536 | | May 1, 1997 |
| | AAR | 5,787,032 | Jul. 28, 1998 | Heller | 365 | | Jun. 10, 1994 |
| | AAS | 5,800,996 | Sep. 1, 1998 | Lee | 435 | | Oct. 4, 1996 |
| | AAT | 5,804,386 | Sep. 8, 1998 | Ju | 435 | | Jan. 15, 1997 |
| | AAU | 5,831,014 | Nov. 3, 1998 | Cook | 530 | | Feb. 22, 1995 |
| | AAV | 5,827,660 | Oct. 27, 1998 | Singer | 435 | | Aug. 9, 1996 |
| | AAW | 5,846,729 | Dec. 8, 1998 | Wu | 435 | | July 1, 1997 |
| | AAZ | 5,866,336 | Feb. 1, 1999 | Nazarenko | 435 | | Jan. 3, 1997 |
| | AAY | 5,879,885 | Mar. 9, 1999 | Becker | 435 | | Jun. 7, 1995 |
| | AAZ | 5,925,517 | Jul. 20, 1999 | Tyagi | 435 | | May 12, 1995 |
| | ABA | 5,985,563 | Nov. 16, 1999 | Hyldig-Nielsen et al. | 435 | 6 | Jun. 5, 1997 |
| | ABB | 5,348,853 | Sep. 20, 1994 | Wang, et al. | 435 | 6 | Dec. 16, 1991 |
| | ABC | 6,177,249 | Jan. 23, 2001 | Kwok, et al. | 435 | 6 | Apr. 20, 1999 |
| | ABD | 5,487,972 | Jan 30, 1996 | Gelfand et al. | 435 | 6 | Jan 5, 1993 |
| | ABE | 5,629,178 | May 13, 1997 | Demers | 435 | 91.2 | Oct 28, 1994 |
| | ABF | 5,635,347 | Jun 3, 1997 | Link et al. | 435 | 6 | Jan 28, 1994 |
| | ABG | 5,656,461 | Aug 12, 1997 | Demers | 435 | 91.1 | Jun 6, 1995 |
| | ABH | 5,723,591 | Mar 3, 1998 | Livak et al. | 536 | 22.1 | Nov 15, 95 |
| | ABI | 5,804,375 | Sept 8, 1998 | Gelfand et al. | 435 | 6 | Sept 8, 1998 |
| | ABJ | 5,849,544 | Dec 15, 1998 | Harris et al. | 435 | 91.2 | Feb 3, 1994 |
| | ABK | 5,876,930 | Mar 2, 1999 | Livak et al. | 435 | 6 | Nov 15, 1995 |
| | ABL | 5,888,733 | Mar 30, 1999 | Hyldig-Nielsen et al. | 435 | 6 | Oct 2, 1996 |
| | ABM | 5,891,625 | April 6, 1999 | Buchardt et al. | 435 | 6 | Dec 23, 1993 |
| | ABN | 5,912,145 | Jun 15, 1999 | Stanley | 435 | 91.1 | Dec 8, 1994 |
| | ABO | 5,972,610 | Oct 26, 1999 | Buchardt et al. | 435 | 6 | Oct 8, 1997 |
| | ABP | 6,020,124 | Feb 1, 2000 | Sorenson | 435 | 6 | Jun 7, 1995 |
| | ABQ | 6,030,787 | Feb 29, 2000 | Livak et al. | 435 | 6 | Dec 7, 1998 |
| | ABR | 6,103,476 | Aug 15, 2000 | Tyagi et al. | 435 | 6 | Mar 15, 1999 |
| | ABS | 6,110,676 | Aug 29, 2000 | Coull et al. | 435 | 6 | Nov 3, 1997 |
| | ABT | 6,214,979 | April 10, 2001 | Gelfand et al. | 536 | 22.1 | Sept 19, 1997 |
| | ABU | 6,355,421 | Mar 12, 2002 | Coull et al. | 435 | 6 | Oct 27, 1998 |
| | ABV | 6,361,942 | Mar 26, 2002 | Coull et al. | 435 | 6 | Mar 24, 1999 |

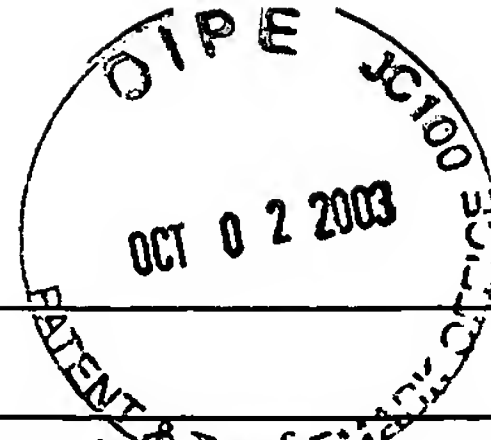
FOREIGN PATENT
DOCUMENTS

| EXAM . INT. | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB CLASS | TRANSLATION YES NO | |
|----------------|----|--------------------|-----------------|---------|-------|--------------|-------------------------|--|
| | BA | EP0853129A2 | Jul. 15, 1998 ✓ | EPO | | | | |
| | BB | WO95/13399 | May 18, 1995 ✓ | WIPO | | | | |
| | BC | WO97/14026 | Apr. 17, 1997 ✓ | WIPO | | | | |
| | BD | WO97/18325 | May 22, 1997 ✓ | WIPO | | | | |
| | BE | WO97/39008 ✓ | Oct. 23, 1997 | WIPO | | | | |
| | BF | WO97/46711 ✓ | Dec. 11, 1997 | WIPO | | | | |
| | BG | WO97/46714 ✓ | Dec. 11, 1997 | WIPO | | | | |
| | BH | WO98/10096 ✓ | March 12, 1998 | WIPO | | | | |
| | BI | WO98/14612 ✓ | April 9, 1998 | WIPO | | | | |
| | BJ | WO98/18965 ✓ | May 7, 1998 | WIPO | | | | |

EXAMINER: _____ DATE CONSIDERED: _____

| | |
|----|--|
| CQ | Holland, P.M. et al, Detection of specific polymerase chain reaction product by utilizing the 5'→3' exonuclease activity of <i>Thermus aquaticus</i> DNA polymerase. Proc. Natl. Acad. Sci. USA 88, 7276-7280 (1991) |
| CR | Hung, S.-C. et al, Comparison of fluorescence energy transfer primers with different donor-acceptor dye combinations. Analy. Bi chem. 255, 32-38 (1998) |
| CS | Hyldig-Nielsen, J.J. et al, Advances in the use of PNA probes for diagnostic testing. IBC's 3rd Annual International Symposium on Diagnostic Gene Detection and Quantification Technologies for Infectious Agents and Human Genetic Diseases . Feb. 25-27, 1998, Lake Tahoe, NV |
| CT | Hyrup, B. et al, Peptide Nucleic Acids (PNA): Synthesis, Properties and Potential Applications. Bioorg. & Med. Chem. 4, 5-23 (1996) |
| CU | Iyer, M. et al, Accelerated Hybridization of Oligonucleotides to Duplex DNA. The J. of Biol. Chem. 270, 14712-14717 (1995) |
| CV | Jordan, S. et al, New hetero-oligomeric peptide nucleic acids with improved binding properties to complementary DNA. Bioorg. & Med. Chem. Lett. 7, 687-690 (1997) |
| CW | Jordan, S. et al, Synthesis of new building blocks for peptide nucleic acids containing monomers with variations in the backbone. Bioorg. & Med. Chem. Lett. 7, 681-686 (1997) |
| CX | Ju, J. et al, Fluorescence energy transfer dye-labeled primers for DNA sequencing and analysis. Proc. Natl. Acad. Sci. USA 92, 4347-4351 (1995) |
| CY | Kostrikis, L.G. et al, Spectral genotyping of human alleles. Science 279, 1228-1229 (1998) |
| CZ | Krotz, A.H. et al, Synthesis of "Retro-inverso" Peptide Nucleic Acids: 2. Oligomerization and stability. Tett. Lett. 36, 6941-6944 (1995) |
| DA | Lagriffoul, P.-H. et al, The synthesis, co-oligomerization and hybridization of a thymine-thymine heterodimer containing PNA. Bioorg. & Med. Chem. Lett. 4, 1081-1082 (1994) |
| DB | Larin, Z. et al, Fluorescence <i>in situ</i> hybridisation of multiple probes on a single microscope slide. Nucleic Acids Res. 22, 3689-3692 (1994) |
| DC | Lee, L.G. et al, Allelic discrimination by nick-translation PCR with fluorogenic probes. Nucleic Acids Res. 21, 3761-3766 (1993) |
| DD | Leone, G. et al, Molecular beacon probes combined with amplification by NASBA enable homogeneous, real-time detection of RNA. Nucl. Acids Res. 26, 2150-2155 (1998) |
| DE | Lester, A. et al, PNA array technology. Presented at Biochip Technologies Conference in Annapolis (Oct 1997) |
| DF | Lewis, R. Oncor and Chiron Offer Improvements & Alternatives in Gene Amplification. Gen. Eng. News 17, 3 & 36 (June 1, 1997) |
| DG | Livak, K.J. et al, Oligonucleotides with Fluorescent Dyes at Opposite Ends Provide a Quenched Probe System useful for Detecting PCR Product and Nucleic Acid Hybridization. PCR Methods and Applic. 4, 357-362 (1995) |
| DH | Lowe, G. et al, Amino acids bearing nucleobases for the synthesis of novel peptide nucleic acids. J. Chem. Soc., Perkin Trans. 1, 4, 539-546 (1997) |
| DI | Lowe, G. et al, Dipeptides bearing nucleobases for the synthesis of novel peptide nucleic acids. J. Chem. Soc., Perkin Trans. 1, 4, 547-554 (1997) |
| DJ | Lowe, G. et al, Solid-phase synthesis of novel peptide nucleic acids. J. Chem. Soc., Perkin Trans. 1, 4, 555-560 (1997) |
| DK | Lutz, M.J. et al, Recognition of Uncharged Polyamide-Linked Nucleic Acid Analogs by DNA Polymerases and Reverse Transcriptases. J. Am. Chem. Soc. 119, 3177-3178 (1997) |
| DL | Lyamichev, V. et al, Structure-Specific Endonucleolytic Cleavage of Nucleic Acids by Eubacterial DNA Polymerases. Science 260, 778-783 (1993) |
| DM | Matray, T.J. et al, Selective and stable DNA base pairing without hydrogen bonds. J. Am. Chem. Soc. 120, 6191-6192 (1998) |
| DN | Meldal, M. et al, Anthranilamide and Nitrotyrosine as a Donor-Acceptor Pair in Internally Quenched Fluorescent Substrates for Endopeptidases: Multicolumn Peptide Synthesis of Enzyme Substrates for Subtilisin Carlsberg and Pepsin. Anal. Biochem. 195, 141-147 (1991) |
| DO | Mergny, J.-L. et al, Fluorescence Energy Transfer between Two Triple Helix-Forming Oligonucleotides Bound to Duplex DNA. Biochem. 33, 15321-15328 (1994) |
| DP | Nazarenko, I.A. et al, A closed tube format for amplification and detection of DNA based on energy transfer. Nucleic Acids Res. 25, 2516-2521 (1997) |
| DQ | Nazarenko, I.A., A Closed-Tube Format for Amplification and Detection of Nucleic Acids Based on Energy Transfer. Fifth Annual Advances in Nucleic Acid Amplification and Detection , San |

EXAMINER: _____ DATE CONSIDERED: _____



| | | |
|--|----|---|
| | | Francisco, CA (June 16-17, 1997) |
| | DR | Ng, M. et al, A Fluorescent Oligopeptide Energy Transfer Assay with Broad Applications for Neutral Proteases. Anal. Bi chem. 183, 50-56 (1989) |
| | DS | Nielsen, P.E. et al, Peptide Nucleic Acid (PNA). A DNA Mimic with a Peptide Backbone. Bioc n. Chem. 5, 3-7 (1994) |
| | DT | Nielsen, P.E. et al, Peptide nucleic acids (PNAs): Potential Antisense and Anti-gene Agents. Anti-Cancer Drug Design 8, 53-63 (1993) |
| | DU | Oncor, Inc. Press Release April 14, 1997. |
| | DV | Paris, P.L. et al, Probing DNA sequences in solution with a monomer-excimer fluorescence color change. Nucl. Acids Res. 26, 3789-3793 (1998) |
| | DW | Parkhurst, K.M. et al, Kinetic Studies by Fluorescence Resonance Energy Transfer Employing a Double-Labeled Oligonucleotide: Hybridization to the Oligonucleotide Complement and to Single-Stranded DNA. Biochem. 34, 285-292 (1995) |
| | DX | PerSeptive Promotional Literature. Bio ConSepts: PNA and its use as an analytical molecular biology tool. 1996 |
| | DY | PerSeptive Promotional Literature. Peptide Nucleic Acids (PNA): Expanding the role of synthetic DNA analogs. 1995 |
| | DZ | PerSeptive Promotional Literature. Peptide Nucleic Acids (PNA): Probing the improbable. 1997 |
| | EA | PerSeptive Promotional Literature. PNA Oligomers as hybridization probes. 1995 |
| | EB | Petersen, K.H. et al, Synthesis and oligomerization of N ^δ -Boc-N ^α -(thymine-1-ylacetyl)ornithine. Bioorg. & Med. Chem. Lett. 6, 793-796 (1996) |
| | EC | Piatek, A.S. et al, Molecular beacon sequence analysis for detecting drug resistance in <i>mycobacterium tuberculosis</i> . Nature Biotech. 16, 359-363 (1998) |
| | ED | Promisel Cooper, J. et al, Analysis of Fluorescence Energy Transfer in Duplex and Branched DNA Molecules. Biochem. 29, 9261-9268 (1990) |
| | EE | Ratilainen, T. et al, Hybridization of peptide nucleic acid. Biochem. 37, 12331-12342 (1998) |
| | EF | Rye, H.S. et al, Stable fluorescent complexes of double-stranded DNA with bis-intercalating asymmetric cyanine dyes: properties and applications. Nucleic Acids Res. 20, 2803-2812 (1992) |
| | EG | Scheffler, I.E. et al, Helix formation by dAT oligomers. I. Hairpin and straight-chain helices. J. M l. Biol. 36, 291-304 (1968) |
| | EH | Selvin, P.R., Fluorescence Resonance Energy Transfer. Methods in Enzymology 246, 300-334 (1995) |
| | EI | Singh, D. et al, Oligonucleotides, part 5+: synthesis and fluorescence studies of DNA oligomers d(AT) _n containing adenines covalently linked at C-8 with dansyl fluorophore. Nucleic Acids Res. 18, 3339-3345 (1990) |
| | EJ | Sixou, S. et al, Intracellular oligonucleotide hybridization detected by fluorescence resonance energy transfer (FRET). Nucleic Acids Res. 22, 662-668 (1994) |
| | EK | Sosnowski, R.G. et al, Rapid determination of single base mismatch mutations in DNA hybrids by direct electric field control. Proc. Natl. Acad. Sci. USA 94, 1119-1123 (1997) |
| | EL | Thisted, M. et al, Detection of immunoglobulin kappa light chain mRNA in paraffin sections by <i>in situ</i> hybridization using peptide nucleic acid probes. Cell Vision 3, 358-363 (1996) |
| | EM | Thornton, N.B. et al, Chromophore-quencher probes for DNA. New J. Chem. 20, 791-800 (1996) |
| | EN | Tomac, S. et al, Ionic effects on the stability and conformation of Peptide Nucleic Acid Complexes. J. Am. Chem. Soc. 118, 5544-5552 (1996) |
| | EO | Tyagi, S. et al, Molecular Beacons: Probes that Fluoresce upon Hybridization. Nature Biotech. 14, 303-308 (1996) |
| | EP | Tyagi, S. et al, Multicolor molecular beacons for allele discrimination. Nature Biotech. 16, 49-53 (1998) |
| | EQ | van Gemen, B. et al, Qualitative and quantitative detection of HIV-1 RNA by nucleic acid sequence-based amplification. AIDS 7, S107-S110 (1993) |
| | ER | Vaughan, W.M. et al, Oxygen quenching of pyrenebutyric acid fluorescence in water. A dynamic probe of the microenvironment. Bi ch m. 9, 464-473 (1970) |

EXAMINER: _____ DATE CONSIDERED: _____

| | | |
|--|----|---|
| | ES | Wang, G.T. et al, Design and Synthesis of New Fluorogenic HIV Protease Substrates Based on Resonance Energy Transfer. Tett. Lett. 31, 6493-6496 (1990) |
| | ET | Weber, P.J.A. et al, A fast and inexpensive method for N-terminal fluoresein-labeling of peptides. Bi org. & Med. Chem. Lett. 8, 597-600 (1998) |
| | EU | Weiler, J. et al, Hybridisation based DNA screening on peptide nucleic acid (PNA) oligomer arrays. Nucl Acids Res. 25, 2792-2799 (1997) |
| | EV | Wittung, P. et al, Induced Chirality in PNA-DNA Duplexes. J. Am. Chem. Soc. 117, 10167-10173 (1995) |
| | EW | Yamamoto, N. et al, A rapid detection of PCR amplification product using a new fluorescent intercalator; the pyrylium dye, P2. Nucleic Acids Res. 23, 1445-1446 (1995) |
| | EX | Yang, M. et al, A DNA assay based on fluorescence resonance energy transfer and DNA triplex formation. Analy. Biochem. 259, 272-274 (1998) |
| | EY | Yaron, A. et al, Intramolecularly quenched fluorogenic substrates for hydrolytic enzymes. Analy. Biochem. 95, 228-235 (1979) |
| | EZ | Zimmerman, M. et al, A New Fluorogenic Substrate for Chymotrypsin. Anal. Biochem. 70, 258-62 (1976) |
| | FA | Ratilainen, T. et al, Hybridization of Peptide Nucleic Acid. Biochem. 37, 12331-12342 (1998) |
| | FB | Wang, J. et al, Peptide nucleic acid probes for sequence-specific DNA biosensors. J. Amer. Chem. Soc. 118, 7667-7670 (1996) |
| | FC | Corey, D.R., et al. Peptide Nucleic Acids: expanding the scope of nucleic acid recognition. Tibtech. 15, 224-229 (1997) |
| | FD | Nielsen, P.E., Peptide Nucleic Acid. A Molecule with Two Identities. Acc. Chem. Res. 32, 624-630 (1999) |
| | FE | Ortiz, E., et al. PNA molecular beacons for rapid detection of PCR amplicons. Molecular and Cellular Probes. 12, 219-226 (1998) |
| | FF | Ratilainen, T., et al. Hybridization of Peptide Nucleic Acid. Biochemistry. 37, 12331-12342 (1998) |
| | FG | Parkhurst et al., Donor-Acceptor Distance Distributions In A Double-Labeled Fluroescent Oligonucleotide Bost As A Single Strand And In Duplexes, Biochemistry , 34, 293-300 (1995) |
| | FH | Agrawal, S. et al, Site specific functionalization of oligonucleotides for attaching two different reporter groups. Nucleic Acids Research , 18, 5419-5423, (1990) |
| | FI | Demers, D. et al, Enhanced PCR amplification of VNTR locus D1S80 using peptide nucleic acid (PNA). Nucleic Acids Research , 15, 3050-3055, (1995) |



EXAMINER: _____ DATE CONSIDERED: _____